THE TECHNIQUE OF MEDIAEVAL AND MODERN PRODUCE MARKETS

I. FUNCTION AND NATURE OF ORGANIZED SPECULATION

Mediaeval ordinances prohibited speculative transactions and were particularly severe against resale without displacement of the goods. It was supposed that gains made by conveying goods from one place to another were legitimate and that gains entirely attributable to changes in value were not. The function of the middleman was supposed to consist entirely in the movement of commodities from one place to another. According to the letter of the law, speculation was illegal, but the prohibitions could not be enforced and the arbitrage transactions between different places were not free from speculation as was supposed. Under the prevailing conditions of trade, changes in value in a period of time could not be separated from the differences in value in different markets. The purchase and sale in the distant markets were not simultaneous. Purchase in the low markets of a producing region preceded by a considerable period the eventual sale in the consuming center. The interval of time that must needs elapse introduced a definitely speculative element into a transaction that was officially tolerated because it was supposed to be free from the taint of speculative gain. There were some communities where life was so distinctly self-centered that trade with distant markets was relatively unimportant, but such extreme localism was not characteristic of the late mediaeval period. For the most part, trading relations were elaborately developed.

The changes in the technique of market organization in the eighteenth and nineteenth centuries have made it possible to distinguish sharply between the truly speculative time transactions and the essentially non-speculative transactions between different places. The accomplishment of this result turns upon the full recognition of the essential interdependence of the markets that constitute a market system, and upon the development of contracts

for future delivery. Grudgingly the community has come to recognize that speculation is inevitable and necessary, but speculative gains are still associated in the mind of many citizens with dishonesty, gambling, and predatory activity. Because the sale of commodities without displacement seems to involve no effort, but merely chance, the profits are deemed to be tainted. The modern market system is thus misunderstood because of a firmly rooted prejudice, and the great improvement in the technique of trade almost unrecognized.

Speculation is to be distinguished from gambling by the nature of the contingency. Gambling is concerned with pure contingency apart from any other consideration. The outcome of any uncertain event can become the basis of a wagering contract. The results of games, races, political contests, and the like are the characteristic field of the wager. Attention is concentrated wholly upon the occurrence or non-occurrence of the event. In an election bet, for instance, there is no implication that either party will be directly concerned in the outcome; so far as wagering is concerned they might as well bet upon the turn of dice. A speculative transaction involves an element of contingency. It assumes that something is going to happen of which no one knows precisely what the outcome will be, but the speculator is interested in the consequences of the event. To bet on the outcome of a horse race is in itself pure gambling. The same event may contribute an essential fact to a speculative transaction. Suppose a person has bought a relatively unknown horse thinking the animal seriously underrated because of poor training and driving. The horse is taken in hand with a view to ultimate sale when its true powers have been revealed. The value of the horse can be demonstrated only by a series of successful performances on the race track, so that the owner is taking a chance, as it were, upon the outcome of the races. It will be readily seen, however, that the place of these races in the owner's interest is very different from the importance attached to the same events by persons who have given money to a bookmaker on the same horse. To the owner the race is merely a way of proving to others the accuracy of opinions long held by him. It is part of a larger situation. His gain is to be derived from estab-

lishing a different opinion as to the value of the horse. The gambler is interested merely in winning or losing. To him the race is a bare fact without consequences. Speculation is thus an attempt to gain by anticipating changes in the values of commodities. Gambling is a seeking of gain and excitement from the occurrence or non-occurrence of any uncertain event. Speculation is concerned with the content and significance of events affecting the valuation of commodities, gambling with the bare fact that something has occurred.

Mediaeval speculation is not to be distinguished from modern speculation by the antithesis between time differences and place differences. All speculation involves the element of time. But essential differences may arise in the mode of handling the goods during the time interval. In the Middle Ages, the speculator in produce was practically limited in his operations by the amount of his personal wealth. Today, goods held for speculation are largely carried on credit. In abstract terms, the difference may seem slight, but in reality it involves a complete transformation of the technique of trade, and the organization which today makes possible the extension of credit in this field also brought to an end the confusion between the speculative and non-speculative elements of dealing in produce.

The necessity of speculating upon personal capital in the Middle Ages greatly restricted the scope of professional operations. All owners of property were obliged to speculate more or less, and the owners of large estates became involved in considerable ventures. It was illegal to purchase grain for speculative hoards, and there is reason to believe that the prohibitions were enforced in a measure. We may feel some assurance that large hoards were not formed by direct purchase in the markets, but the laws could not oblige an owner to sell except in times of extreme dearth, so that the owners and landed proprietors could legally store the rents in kind received from the estate. In regions which yielded a substantial surplus above ordinary local needs the hoards of the tithe barns and manor houses were considerable. These stores were the basis of much wholesale buying at all times, and were the main source of reliance in the years of dearth. Persons of small means were

obliged by necessity to sell their grain in the local market more or less promptly. Unless the small cultivator was peculiarly needy, his grain was sold off little by little according to the possibilities of using the straw for the cattle. The drying and curing of the grain was thus provided for automatically by leaving it unthreshed until it could be sold and consumed. This practice also insured a fairly steady supply for the local market throughout the season. Force of circumstances thus made the small cultivator the dominant resource of the market from week to week. In regions having a surplus those who could postpone sale for an indeterminate period found it to their advantage to do so, and they became by force of circumstances a class of unprofessional speculators who held grain for six, seven, or eight years at times. Grain in store was usually kept in hermetically sealed pits. There was considerable risk of deterioration, but such methods of storage are excelled only by the most elaborate elevator construction of modern times. The existence of these hoards was of moment to the professional trader. Where such supplies existed the merchant from the large town found it advantageous to deal directly with the wealthy proprietors. Purchases could thus be made in bulk and without regard to the market regulations that were so frequently designed to discourage the wholesale trader. The professional trader was more likely to confine his speculation to the current season; the proprietor took the risks of loss through deterioration and of protracted waiting for a year of dearth.

The nearest approach to an application of credit to produce speculation in the Middle Ages was the purchase of a standing crop. This was definitely prohibited, but it is certain that the ordinances were not enforced. This transaction was a sale of the crop sealed by the payment of a small sum of earnest money. A merchant was thus enabled to secure a considerable supply of grain at harvest without immediate outlay.

Speculation in produce is primarily founded upon the exact determination of the relation between the visible and the total supply. In modern times, statistical information is available which confines individual opinion within fairly narrow limits. In the Middle Ages, the visible supply constituted a smaller portion

of the total supply, and the total supply was hardly more than a matter of pure conjecture. The margin of possible gain for the professional trader was thus considerably increased. The nature of speculative operations was also affected. The great maneuvers of the modern markets are founded upon superiority of knowledge of conditions affecting both demand and supply. General sources of information are so considerable that the trader's gain is based upon acquisition of more precise details and upon skill in drawing deductions from his facts. The history of the famous Patten wheat deal and of the Bull deal in cotton are interesting illustrations of modern successes. In the late Middle Ages the ignorance of the total supply was so complete that the spectacular gains of the merchants were made by refraining from giving the public any enlightenment as to total supplies and studiously creating misapprehensions. Some of the most systematic maneuvers of this type occurred in the vicinity of Paris in the latter half of the seventeenth century, just before the passing of the old order. A large portion of the grain supply of Paris came by water from the upper Marne and Seine. These merchants shipped their grain from the more distant sources of supply, and then, instead of allowing the boats to come through to Paris, they stopped them fifteen or twenty miles outside and unloaded there. Sometimes there was a pretense of holding the grain for conversion into flour; most frequently it was merely stored in secret. The arrivals at Paris could be considerably diminished. Rumors would then spread of relative dearth in the Seine and Marne valleys. Prices would rise. The supplies in the vicinity could then be sold at the advanced prices if the quantities released from store at any one time were not considerable. Such a falsification of the market was made possible by the almost complete ignorance of the amount of the hoardings held in store by the wealthy proprietors of the country districts. The absence of information was of course a natural outcome of the conditions which created such hoards. The possibility of carrying produce on credit has resulted in more immediate sale of the crop and the storage of the greater portion of the actual stock in warehouses that are more or less public. The portion of the supply visible at any one time is much greater than in the past, and as

nearly all the crop is sold in the course of the season accurate seasonal crop statistics become possible. This brings the total supply within the range of certain knowledge.

The organization of the modern markets has extended the functions of the middleman. In the old days his only recognized function was the transportation of the commodity from place to place. Now, apart from the speculative function that we now recognize, there are also a number of non-speculative functions.

The future contract makes it essential that some means be found of trading in the particular commodity as freely as would be possible if the entire supply were actually of uniform quality. The contractor can only agree to deliver certain quantities, and as the specific lot of goods to be delivered is not designated the quality must be described. Such future transactions imply that each portion of the supply is substantially as good as any. In fact, the most even-running commodities present differences of quality. Organized speculation thus involves a grading system. Judgments of quality are standardized, rendered independent of the individual caprice of the parties trading, carefully defined and described so that the adjustments with reference to quality can be impartially and certainly made.

Financing the storage of the commodity during sale is inevitably associated with speculation. The possible changes in value during storage make the transaction speculative in part at least, and the amount of capital value that must lie idle pending sale constitutes a specially serious problem in these days of concentrated trade. When general farming was the rule, sale of a portion of the crop was a necessary means of securing money to pay taxes and other special obligations. The means of subsistence were raised on the farm. Today, the farm is devoted to more highly specialized agriculture. In some places, the agricultural community is actually dependent on central markets for some means of subsistence and for most general articles of consumption. There is more need of ready money. Postponement of sale by the farmer is less feasible than in the past. He desires to sell his crop immediately after the harvest. Professional traders must thus provide means during the harvest period for purchasing the great staple crops almost

entire, and with their bankers they must carry the financial burden until the stocks can be sold. This function of the middlemen is essentially new because of changed conditions in the marketing of staples. The significance of this function has not been adequately appreciated.

The modern methods of marketing the cereal crops create technical problems of conditioning. If the grain is cured before it is threshed there is little danger of trouble from overheating and deterioration. The older methods thus made it possible to dispense with much elaborate curing that is indispensable when the crop is marketed rapidly and massed in elevators. The value of all these products is profoundly affected by the care with which they are handled in the elevators, so that the middleman finds a new source of gain in the manipulation of the product during storage.

Increased freedom to speculate has in fact narrowed the range of speculation. The activities of speculative traders are more evident, of course; much that was concealed is now given wide publicity, concentration has brought together in specific exchanges activities that were formerly spread at large through the storehouses of producing regions or receiving ports. The increased visibility of speculation disposes us to think of our age as characteristically speculative, and the change in law lends support to such a view. But such a generalization is superficial. The change in the technique of trade cannot be described in such terms. It is an error to say that mediaeval trade was largely non-speculative and modern trade highly speculative. The speculative elements in mediaeval trade were not very frankly recognized, but they were present. The achievement of modern commercial organization lies in the separation of the speculative and non-speculative elements involved. During the Middle Ages all transactions involved speculation; today some transactions are purely speculative and others wholly devoid of speculation. Today a trader may choose to speculate or to avoid speculation and seek gain in a purely industrial or commercial operation. The organization of speculative trade has restricted the field of speculative gains and losses, actually reducing the proportionate importance of such transactions.

The organization of produce speculation has obscured in a measure the distinction between speculation and gambling. It is not so clearly evident today that the speculator actually owns produce, and this has presented a real problem. In the modern markets many transactions are settled by ring settlement or set-off. The business of the different traders on an exchange during the day is naturally settled in the simplest way. If A has bought wheat and later sold a similar amount there is really nothing to be done but pay the differences in cash. It is likewise possible to bring together a group of transactions which involve several parties who have dealt in similar lots. The whole series of purchases and sales can perhaps be liquidated by a single transfer of warehouse certificates for money, so that the parties eliminated do not actually go through the form of buying and selling produce. Critics of the exchanges have endeavored to discredit these operations by declaring that they are in fact mere wagers upon the rise and fall of prices. It cannot be denied that it is possible to make wagers upon the movement of prices. There may be some wagering in the exchanges, but it is certainly not characteristic. The operations on the floor of the exchange are wagers neither in form nor in intent. Transactions are based upon actual rights to acquire property or upon obligations to deliver property. The goods are represented only by documents of title that are symbols of property, but this does not make the transaction less real. The Supreme Court has upheld the exchange, and the doctrine of intent that is involved is one of the most fundamental legal principles.[1]

II. TECHNIQUE OF MODERN MARKETING

Organized speculation is based upon contracts for future delivery which make it possible to sell for specified prices goods which are to be delivered in the future. These contracts may assume a variety of forms. They may be divided in general into "to arrive" contracts and term contracts, and term contracts may be of two kinds, specific grade contracts or basic grade contracts. The sale of goods in transit with agreement to deliver at the stated price

[1] *L. A. Kinsey & Co.* v. *Board of Trade of Chicago*, October, 1904, 198 U.S. 236.

immediately upon arrival is a form of contract that is naturally adapted to the conditions of trading in receiving ports or consuming markets. This mode of doing business grew up in connection with the maritime trade of London and Amsterdam. Cargoes were sold while still at sea, and time of arrival was naturally made the time of delivery. Such contracts are also applied to goods in transit by rail, though the shorter interval of time likely to elapse makes such a contract slightly less speculative than the marine contracts. These contracts are usually made upon the basis of samples sent in advance of the general cargo or upon the understanding that the goods must be of fair average quality (the so-called f.a.q. basis). Disputes as to quality would in such cases be adjudicated by a committee of the trading association and deductions from the price allowed if the stuff were below grade. Such contracts can therefore be used without any system of grading. The strict term contracts, however, require a formal and systematic grading. The precise nature of the grades established can vary within wide limits, but some system is presupposed by the character of the contract. The obligation of such a contract is not to deliver a specific lot, but merely to deliver, within specific time limits, a certain quantity of stuff so that there must be some definition of the quality of the goods to be delivered. Two modes of defining the qualities are open: the seller may be required to deliver a specific grade of goods at the price stated, with permission perhaps to deliver higher grades without compensation, or he may be allowed to deliver stuff of several grades at prices to be computed by additions to the price of a basic grade if the goods are above the base chosen and by subtraction from the basic price if below the grade in terms of which the price is quoted.

These varieties of form are the outcome of different trading conditions. The relative advantages of the term contract and the "to arrive" contract are related to the slightly different problems of marketing in producing and consuming centers. The producing market will have little occasion for the "to arrive" contract; the consuming market will find it possible to use both forms, though in many cases the "to arrive" contract seems to be better adapted to the needs of trade than the other form. For this reason, it

would be a serious error to regard the "to arrive" form as a rudimentary term contract, and in tracing origins and studying tendencies it is essential to remember the complexity of the problem.[1] The two forms of term contracts are likewise an outcome of differences in conditions. Some commodities can be handled most readily in a particular market upon a specific contract; others can be handled only upon a basic contract. When the number of grades is small and proportions fairly certain, the specific contract has become the characteristic form, as it is in the wheat pit of the Chicago Board of Trade. With a great multiplicity of grades and much uncertainty as to the proportion of each grade from year to year, as in the cotton trade, a basis contract is probably essential.

In view of all these complexities of form it might seem that historical treatment of the growth of the modern system would be impracticable, but the course of development is not complicated. The Dutch in the seventeenth century used all forms of speculative contracts, and their speculation tended to degenerate into pure gambling entirely detached from actual buying and selling of goods. In England, in the eighteenth century, the "to arrive" contract was elaborately developed and placed on a secure basis by reason of the development of the bill of lading into a negotiable symbol of property. In the East India trade at London and in the iron trade at Glasgow, the dock warrant was developed and at Glasgow became a purely general certificate of ownership of a particular quantity of a specified grade of goods. This development of negotiable symbols of property was a fundamental step as it afforded the possibility of using the various future contracts without the

[1] Emery, *Speculation on the Stock and Produce Exchanges of the United States*. In a general description of the rise of speculation (pp. 32–38), Mr. Emery says of these "to arrive" contracts (p. 35), "Their old importance as insurance against fluctuating prices has disappeared with the advent of the improved methods of the speculative market." Inasmuch as the speculative grain trade of London is still almost entirely based on such contracts and as similar contracts are common in German trade, it would seem that Mr. Emery is inclined to generalize from American conditions. There is a real danger in forgetting that such a subject cannot be adequately treated within the limits of the history of any single country. Diversities of form attributable to differences in essential conditions are one of the serious problems in the description of modern methods of speculative organization. It is as yet too soon to announce the undoubted superiority of any particular form of doing speculative business.

dangers that had been fully revealed by Dutch experience. Finally, in the grain trade of western United States, the term contract was developed into an elaborately developed instrument that seems to represent the final form.

In the Middle Ages the law of the market insisted upon the physical presence of the goods to be bought and sold. The market could deal only in such supplies as were physically visible. The inconvenience and dangers of such limitations became serious with the rise of wholesale marketing. The essential interdependence of producing and consuming markets could not be recognized adequately until each market was made competent to trade in terms of the whole supply to be found in the entire group of related markets. The stability of the large markets was greatly increased by making it possible to buy and sell not merely the goods physically present, but goods in transit and goods actually in the hands of traders on another market. The significance of this interdependence of markets has become doubly clear since the great improvements in communication have made it possible for dealers to engage in operations simultaneously in widely separated markets. The full development of this system of trading has been confined to the period subsequent to the opening of the Atlantic cable, but the origin of the system reaches farther back into the past. This modern system of trading rests upon two types of instrument: the future contracts already described, and symbols of property, such as bills of lading, dock warrants, and warehouse certificates. The early forms of future trading have been discussed already and the necessity of other instruments can be clearly perceived in the tendency of Dutch speculation to degenerate into gambling on differences.

The new legal doctrines which were to complete the technical foundation of the modern speculative system appear first in the law merchant and the English decisions associated with it. Neither the bill of lading nor the dock warrant was itself new, but both instruments acquired new legal attributes in the course of the eighteenth century. Originally mere receipts of goods and contracts for carriage or storage, they became negotiable instruments whose delivery when properly indorsed constituted delivery of title.

The formative periods in the legal history of the bill of lading in England are the sixteenth and eighteenth centuries. The bill became common and acquired its general form in the course of the sixteenth century; the legal doctrine of negotiability was not fully developed until the latter part of the eighteenth century. From these general facts one is tempted to lay down the general proposition that the bill as a receipt for goods and contract of affreightment became definitely settled in the early period, but did not become a symbol of title negotiable by indorsement until the eighteenth century. This conception of the development of the bill should probably be qualified, as the sale of floating cargoes and transfer of title by indorsement of bills certainly occurred in fact long before it was solidly established in legal doctrine. A number of bills of lading are published in the *Select Pleas in the Court of Admiralty*.[1] The form of the instrument is evidently unsettled in a number of respects, and a real development is evident. The documents suggest in every respect the origin of the instrument and seem to be merely receipts for goods and contracts of affreightment,[2] but this narrower view of the bill is invalidated by the editor's heading with reference to the bill of November 7, 1539. The bill was drawn for a consignment of iron from Bilbao to London. The iron was sold while afloat, the bill of lading was indorsed to the buyer, and the goods were delivered to him.[3] A decision of Savary, the noted French authority on commercial law in the late seventeenth century, would also suggest that actual use of bills of lading was not limited by acknowledged doctrine. Savary says: "It is asked if a bill of lading should be deemed valid if it merely states what merchandise has been received by the master of the vessel without mention of the consignee. It is absolutely essential that the bill contain the name of the consignee,

[1] *Selden Society Publications*, Vols. VI and XI. For the Mediterranean history of the bill of lading see Goldschmidt, *Universalgeschichte des Handelsrechts*, I, Part I, pp. 341–42. In general: W. P. Bennet, *The History and Present Position of the Bill of Lading*, Cambridge, 1914.

[2] *Select Pleas in the Court of Admiralty*, I, 61, 89, 93; II, 59, 61, 63; bills dated, respectively, October 22, 1538; November 7, 1539; June 29, 1541; November 28, 1549; May 6, 1554; February 19, 1557; December 15, 1570.

[3] *Ibid.*, I, 88–89.

otherwise it is a fraud."[1] With the rise of speculative trade it was the practice to draw bills in blank with the intention of filling in the name of the consignee when the goods had been sold, thus it becomes interesting to speculate as to the inferences that may be properly drawn from Savary's statement and from the passage in the Marine Code of 1681 to which he refers. It is difficult to avoid the conclusion that merchants made frequent use of bills of lading in ways that were not recognized by the courts, so that one must avoid the narrow view of the matter. However, there are plenty of reasons for supposing that such deliveries by indorsement must have been rare. The practice of indorsement of bills of exchange was only just beginning in the north of Europe in this period and was not generally adopted until the middle of the seventeenth century. Furthermore, the fact that the full recognition of the negotiability of the bill of lading was postponed till the eighteenth century is presumptive evidence that the practice was not widespread. Had there been many cases the problems would have come to the notice of the courts earlier. The number of significant cases between 1750 and 1790 is eloquent evidence of the close relation of case law to the needs of the community.

The modern law takes form in the eighteenth century. The more important cases are: *Fearon* v. *Bowers*, March 28, 1753; *Wright, assignee of Scott*, v. *Campbell*, 1767; *Caldwell et al.* v. *Ball*, May 17, 1786; *Lickbarrow* v. *Mason*, 1787; and a second trial in 1794. The principle of negotiability is definitely stated in the earliest of these cases. Justice Lee said in summing up, "To be sure, nakedly considered, a bill of lading transfers property and a right to assign that property by endorsement."[2] The legal problems centered in no small measure around the nature of negotiability. There was disposition on the part of some to assume that the degree of negotiability was precisely similar to that of a bill of exchange. This doctrine was not accepted by the courts, and in the course of the period the difference between this aspect of the two bills was clearly brought out. *Wright* v. *Campbell*

[1] Savary, *Parfait négociant*, 8th ed., 1721, II, 656, Parère XC.

[2] 1 H. Blackstone 364. *Fearon* v. *Bowers*, March, 1753, cited in a note under report of *Lickbarrow* v. *Mason*.

involved the right of a factor to sell goods consigned to him by his principal while they were in transit.[1] *Caldwell* v. *Ball* involved the problem of precedence of different copies of the bill of lading when the indorsements were different, though constructively the same.[2] The case of *Lickbarrow* v. *Mason* involved two problems: stoppage *in transitu* in case of the insolvency of the original consignee, and the validity of bills indorsed in blank.[3] The complexity of the case, its prominence, and long judicial history made it the controlling case on the legal doctrines involved. It may be regarded as practically completing the legal doctrine of negotiability.

The instruments of title which grew out of the warehousing system are closely analogous to the bill of lading, but the economic and legal history is absolutely distinct. These warrants or warehouse receipts arose much later than the bill of lading, and despite their economic significance they have not yet acquired a legal standing comparable to the bill of lading. Furthermore, the law of the different countries is quite distinct. There was apparently a parallel growth of such instruments in Holland, England, and France. In France and England the forms of the instrument were different, in Holland the tendencies were at the outset essentially similar to the English tendencies, but the movement seems to have lost its force in the latter part of the eighteenth century, so that the history of the instrument in Holland was without notable consequences. The actual history of the warrant is still hopelessly obscure, and the disproportionate emphasis placed upon the English system and its history has tended to create additional misapprehensions in a subject already fertile in difficulties.[4] Hecht declares that the economic importance of the warrant and its legal development were "a product of English trade and customary mercantile law,"[5] but he does not support his contention and the

[1] Burrows Report, 2050, and in various other reports.

[2] Term Report 205.

[3] Term Report 63, 1787: 1 H. Blackstone 357, February, 1790; reversal in Exchequer Chamber; 2 H. Blackstone 211; new trial ordered by the House of Lords; 5 Term Reports 683, July, 1794.

[4] F. Hecht, *Die Warrants*, Stuttgart, 1884; O. C. Fischer, *Die wirtschaftliche Entwickelung des Warrantverkehrs in Europa und Amerika*, Berlin, 1908.

[5] Hecht, *op. cit.*, p. 4.

history of the warrant in France and in Holland[1] would seem to lead to different historical conclusions. England may have been quicker to adopt a new device with beneficial results to her commerce, or the greater volume of her trade may have given a greater significance to a commercial system whose technical details were well understood in both France and Holland. It is not very satisfactory to ascribe the increase in English trade to the development of the warrant system. The general decline of trade in both France and Holland toward the close of the eighteenth century affords a more natural explanation of the relative importance of the progress of the technique of trading at this time.

The general similarity of warrants and bills of lading and the frequent association of both types of instrument under the general term "document of title" has led some German writers to suppose that the legal properties of the instruments are the same. The neglect of case law is unfortunate. Both warrants and delivery orders are to be distinguished from bills of lading with respect to the legal meaning of negotiability, and the warrants and delivery orders differ from each other.[2]

Goods in stores, free or bonded, can be made the subjects of security, or transfer on sales, by means of delivery orders. . . . . A delivery order, like a cheque, assumes three parties. . . . . The usual terms of the order are simple enough. It is—"Deliver to A. B. or his order, so many goods, identified by marks and numbers, or so many bushels of grain from a particular lot lying in your store." It is signed by the owner, and is in favor of the particular party therein named. That order is not of the least use to the grantee until he has gone with it to the storekeeper, and has got the storekeeper to transfer the goods to the grantee's name.[3] . . . .

A delivery order very often is transferred from hand to hand. The original grantee indorses it "Deliver to so and so," and it may be indorsed twice or thrice over. It would be a mistake, however, to imagine that the delivery order, though capable of indorsation, is a negotiable instrument.[4] . . . . If

[1] Fischer, *op. cit.*, pp. 71–72, 86; Hecht, *op. cit.*, p. 3. Unfortunately neither cites evidence for these significant historical statements.

[2] R. V. Campbell, *Principles of Mercantile Law*, Edinburgh, 1890, p. 115: "These bills of lading are clearly distinguishable from delivery orders. Such orders, as well as iron scrip warrants and debenture bonds issued by companies without authority of an Act of Parliament, may not be negotiable instruments: but a bill of lading is in many ways like a bill of exchange. . . . ."

[3] Campbell, *op. cit.*, p. 105.

[4] *Ibid.*, p. 106.

you are the indorsee of a delivery order you are not in the position of the holder of a negotiable instrument like a bill; because, in the case of the delivery order, you are subject to all the exceptions arising out of the real contract between the original grantor and the original grantee. One important consequence is that the original grantor of the delivery order can hold the goods for the unpaid price against any indorsee whatever, even against a bona fide indorsee for full value given.[1]

The Scotch iron warrants are issued by iron masters and couched in approximately these terms, "I will deliver so many tons of iron of a specified brand, to any person who shall lodge this document with me after such and such a date." The warrants pass from hand without indorsation. They

are treated in practice as if they were negotiable instruments. Now, the position of these warrants in law, according to the older authorities, is that they are not negotiable instruments: the law does not, or did not accept or adopt them as such. . . . . It is attempted to make these iron warrants negotiable by agreeing that anybody who holds them for value shall be entitled absolutely to delivery, and that he shall have no concern with the state of accounts between the iron master and the original purchaser of the warrant. The law says, or said, that it is not to be allowed, and therefore these warrants stand, or stood, in no better position in law than proper delivery orders. Indeed, it is doubtful if they are not in a worse position, because a proper delivery order is expressed in favor of a certain named person, while the warrants are blank or to bearer.[2]

It is needless to cite the cases upon which these statements are based. The law thus distinguishes between delivery orders, the Scotch warrants, and the dock warrants of the law of England as typified in the East and West India dock warrants of London. Evidently, too, the economic significance of these instruments has not been limited to the field within which they can safely be used under a strict interpretation of the law. Agreement among business men and regard for such commercial usages have tended to give these instruments in substance the flexibility possessed in fact by the bill of lading. The peculiar circumstances of the rise of the warehousing system at London was doubtless of material importance in the establishment of these practices.

III. TRANSACTIONS OF THE MODERN MARKETS

The transactions of modern commerce which contain no element of speculation fall into two general classes that are distinct both in

[1] Campbell, *op. cit.*, p. 107. [2] *Ibid.*, p. 111.

form and in purpose. There are various forms of arbitrage dealings which are designed to secure a certain gain by reason of excessive differences in the prices current on different markets. There are various forms of hedging designed to free the manufacturer or middleman from the risk of a change in price during the process of manufacture or sale. Arbitrage dealings thus result in small but certain gains; hedge transactions are properly neutral, involving neither a net gain nor a net loss. When the manufacturer or middleman hedges, it is his purpose to confine the chance of profit to his mercantile transaction. He avoids all risk of gain or loss by reason of changes in the price of the raw material in order to confine his attention to the technical problems of the process of manufacture and sale. These types of non-speculative transactions are dependent upon the mechanism that is usually thought of in connection with speculation. The various forms of future contracts are essential, and the practice of buying or selling in a particular place when the goods are physically located elsewhere is also characteristic. These transactions are not possible unless there are speculative and spot markets drawn together in a closely organized market system. The non-speculative transactions involve the same technical elements as the speculative transactions; the different results are due to the different combinations of the basic transactions. A future contract may be speculative or non-speculative, or speculative for one party and non-speculative to the other. A short sale may constitute part of a hedge or part of a daring speculative coup. The meaning of a particular purchase or sale cannot be deduced from its form; all its connections must be known. The much-discussed future contracts and short sales are indeed mere incidents of larger transactions, parts of a larger whole to which they are inseparably related. The larger aspects of marketing, too, are so closely associated that the non-speculative aspects cannot exist independently of the speculative aspects. It is this complex web of interdependent elements that constitutes the difference between the loosely related markets of the Middle Ages and the integrated market system of today. The arbitrage transactions and the hedge are of fundamental importance in maintaining the close correspondence between prices on different markets that is characteristic of our organized market system.

The most typical form of arbitrage brings together a spot purchase and a sale under a term contract. Such a mode of dealing is characteristic of exporting regions where there is a keen competition for the product so that exportation is not a matter of course. In regions that seek a vent for a large surplus, the transaction is somewhat altered, though the underlying features are the same. Australian and Indian wheat are consigned to London agents to be sold on commission. Sale in some English or European port is assumed. Notice of the departure of the vessel is forwarded; samples and documents of title will also be sent and will presumably arrive considerably in advance of the ship. The vessel may be sent out with directions to call at Gibraltaı for orders as to final destination. The London commission agent proceeds to sell the cargo while still afloat on a "to arrive" contract. Purchase and sale are not simultaneous, and in that sense the actual character of the deal is for a time indeterminate. The shipment of the wheat may involve a real speculation or it may be sold quickly and become in essence an arbitrage transaction.

Among the various primary markets in the producing regions of the United States another form of transaction is not uncommon. It is not a true arbitrage deal because it does not contemplate actual shipment of goods by the operator. The transaction is affected by a simultaneous purchase and sale of term contracts in the high and low markets. A term contract is bought in the low market, and a contract for an equal quantity sold short in the high market. It is assumed that the operations of other parties will bring the markets closer together and afford a small but certain gain.

Thus let us assume that on a given day in June the price of September wheat on the Minneapolis Chamber of Commerce is $1 per bushel, and the price on the Chicago Board of Trade for the same wheat is $1.04 and that an arbitrageur considers this difference too large and anticipates a coming together of the two prices. Accordingly, he buys on a future contract in Minneapolis and sells short in Chicago at the prices indicated. Let us now suppose that in the course of a week the Minneapolis price rises to $1.04 and the Chicago price to $1.07½ and that the arbitrageur closes out his transactions at these prices. By closing out his purchase in Minneapolis by a sale at $1.04 he makes four cents; and by covering his short sales at Chicago by a purchase at $1.07½ he loses 3½ cents, thus clearing a gross profit of ½ cent.[1]

[1] S. S. Huebner, "The Functions of Produce Exchanges," in *Annals of American Academy of Political and Social Science*, XXXVIII, No. 2, September, 1911, p. 22.

This mode of trading is also applied to other types of price differences, and the practice is doubtless significant, but it would seem that its importance to the market is somewhat different from that of the other forms of arbitrage. In many respects this type of transaction seems to be particularly adapted to maintain relations between different primary markets that are receiving supplies from the producing regions. Actual shipments from market to market are in such circumstances a less convenient means of keeping markets "in line" than changes in the flow of the crop from those districts which can reach both of the markets concerned.

The hedge has been closely associated with a number of significant industrial changes. The transaction is widely used today in connection with flour-milling, meat-packing, cotton-spinning, and to some extent in the coffee trade. All these industries have been transformed or have grown up since the rise of the modern methods of marketing. The development of large-scale production in milling and packing would scarcely have been possible were it not for the hedges, and cotton-spinning could not be conducted upon such a narrow margin of profit if the risk of changes in value in the raw product were not eliminated. The nature of the change will perhaps be most readily appreciated with reference to flour-milling, as there has been a less general alteration of the place of the occupation in social life. The risk of loss to the miller through fluctuations in the price of grain was eliminated in the old days by transferring the risk to the consumer. The well-to-do and middle-class people were largely accustomed to buy grain and have it ground for their own use according to needs. The sale of raw wheat thus played a more prominent part in retail marketing a century and a half ago than it does today. The miller charged a small fee or took a portion of the meal as his toll. In the smaller towns only the poorer people bought finished flour or bread. In the larger towns the trade in flour and bread was rather more considerable, but even in towns like Paris and London much wheat was bought by townspeople for their needs and ground at their expense in mills near the city. The milling business was non-

speculative, but it was necessarily conducted on a small scale with moderate equipment. Dependence upon local slaughter-houses was an equally prominent feature in the life of the past. Absence of refrigeration and of means of rapid transportation rendered the preparation of all meat products a distinctly local affair. Furthermore, there could be no question of risk from change in values of the raw product in the interval between the purchase of the creature and the disposition of the prepared meat. There was no appreciable interval. The butchers' trade was thus non-speculative, though the consumers did not buy the live creatures.

In the course of the last half-century milling and packing have become capitalistic enterprises in no small portion of the western world. Flour consumed throughout the United States and in parts of Europe is milled in Minneapolis. Beef products consumed in the United States and in Europe are prepared in St. Louis and in Chicago. The raw material must be purchased months before the finished product can be sold. A change in market conditions might destroy entirely the mercantile profits of a highly efficient plant. Such enterprises can be conducted only if it is possible to reduce them to a non-speculative basis comparable to the conditions of the old craft organization of days gone by. The future market affords a means of avoiding the speculation on the raw product.

The essential feature of the hedge is the combination of sale and purchase at both moments of contact with the market, both at the beginning of the process of manufacture and at the time of sale. Raw materials must be purchased for production in the spot market. With this transaction is coupled a term contract calling for the delivery of the same quantity of goods during the month in which the finished product will be ready for sale. The sale of the future is at the same price as the spot purchase. The miller is thus on both sides of the market. When the time comes for delivery of raw product under the future contract, the miller must go into the spot market to buy wheat. He is thus under an obligation to buy at the time he enters the flour market as a seller of finished product. At both moments he is buying and selling. Gains on one transaction will clearly balance losses on the other.

The manufacturer is consequently independent of changes in the values of the raw materials.

The manufacturer can manage more readily if he has a large contract with the government for the supply of the army or some such service. In this case, at the time of bidding on the contract, he knows the prices of all the future options for several months in advance, and he can thus calculate pretty exactly what his raw materials will cost. If his bid is accepted he can buy on future contracts for the entire period that he will be working on that order. The cost of his raw material will thus be settled at the outset. He is clear of risk and can make his money on the process of manufacture.

In the old days all speculation was for rising prices. Goods were bought and held back from the market in expectation of a rise. If the market was ill informed, the holding back of goods might cause a considerable increase in prices, and, if the goods were carefully unloaded without at any time revealing the extent of the supply concealed, the operators might realize considerable profits. Such operations were a serious problem in the Parisian grain trade in the late seventeenth century, and probably this was a characteristic form of bull speculation in the older markets. The essence of the transaction was to curtail the visible supply, to have large supplies concealed in close proximity to the consuming market, and to dole out these invisible supplies with scrupulous care. The relative isolation of different markets made such transactions relatively easy. The supply did not really come into sight until it arrived in the market place where it was to be sold to the consumer. In modern market systems such transactions are impossible because the supply comes into full public notice in the wholesale markets of the producing regions. The great consuming markets are today so well informed of possible supplies that they are in some cases distinctly non-speculative in tone. The wheat markets of London, for instance, are essentially non-speculative. The seaboard cities of the United States are also essentially non-speculative wheat markets. The tone of a modern market, however, is the product of many complex circumstances, so that it is impossible to generalize.

Speculative transactions of the modern markets assume that the market is informed of the general circumstances of trade. The gains of the operators are not secured by deceiving the public, but are based upon the accuracy of their inferences from the facts available. The facts are more or less generally known. The general body of public information is supplemented to a certain extent by private effort, but it is safe to say that the known facts are practically accessible to anyone who really wishes to get them. The great traders of the modern markets owe their success to shrewd inferences, wide experience, and command of credit in the commercial community.

Two types of speculation are now possible: speculation for a rise and speculation for a fall. The method of speculating for a rise is entirely different from the older transactions of the Middle Ages and the early modern periods. The speculation for a fall is entirely new.

The nature of modern speculation, however, is not to be understood from a mere designation of the contracts made on each side. Speculation is a continuous process based upon differing interpretations placed upon market conditions. In the large wholesale markets it has become a sort of party contest between "bulls" and "bears."

The notable speculative operations of the modern exchange center around the general situation known as the "squeeze." The name is derived from the uncomfortable position the bears are in toward the close of a month when they have undertaken to deliver larger amounts of stuff than are readily to be had in the market. The competition of the bears for stuff to deliver on "short" contracts forces prices up, so that there is a double significance in the metaphor: it represents in part the notion that the bears are subjected to pressure by the bulls, in part the idea that the forces in the market push prices up to figures that are not actually representative of existing conditions. The squeeze is frequently confused with the corner, particularly by outsiders and by academic writers. The market operators are not likely to use the term "corner," and though their attempts to deny the occurrence of corners have not been well received, their intention of drawing

a sharp distinction between the corner and the squeeze would seem to be well founded. The corner is the characteristic speculative transaction of the unorganized markets. The operator buys actual stuff with the intent to store it for a while. When he has secured substantial control of the supply, he begins to sell at such prices as he chooses because none can compete with him. The only limit is the ability and disposition of the consumer to pay the price asked rather than do without. The transaction, it will be observed, rests entirely with the individual operator. If his means are sufficient he can make a corner at any time. The squeeze is different in every essential particular. The bull operator buys both spot stuff and futures, but at the same time he must sell to the trade. It is his object to induce the bears to sell more stuff for delivery in some month in the future than they will then be able to secure except at greatly enhanced prices. Consequently, he has an interest in depleting the stocks on the primary market by sales to the trade.

This continuous selling to the trade in the interval before the squeeze is the most essential difference between the squeeze and the old corner. It is also worthy of note that a squeeze operation cannot be worked up at will by either bulls or bears. There will be no squeeze unless the bears sell excessive amounts on short contracts; even if the bears are really too optimistic about the future there can be no squeeze unless the bulls are willing to accept the challenge. The squeeze will arise only in those circumstances which produce a marked difference of opinion. In such an operation the party whose judgment of the conditions was the more accurate will gain. The famous Leiter deal in wheat of 1898 was disastrous to Mr. Leiter; the Patten wheat deal in 1909 was as conspicuously successful. These operations arise when real scarcity occurs for reasons that were not anticipated by the bears, either an unexpected shortage of crop or more likely an inadequate estimate of demand. The European demand for American wheat is variable because it depends in no small measure upon the harvests in other parts of the world. In many sections crops are not so well reported, so that wide differences of opinion may well exist. Both the Leiter and Patten operations were based upon inferences with reference

to European demand, but Leiter failed to realize the significance of crop prospects. There had been several short crops and there was an unusual European demand which others did not foresee. The growing crop, however, was promising and ultimately proved to be large. The final offerings of the bears were based on certain knowledge of the abundance of the harvests in the great wheat-producing regions of the world. Patten was careful both in his wheat deal and in the cotton deal in which he was associated in 1909–10. The last stages in the series of operations were in both cases dominated by the crop reports.

These episodes are without exception the most spectacular of modern speculative transactions. They exhibit the working of the modern markets when subjected to most unusual and extreme conditions. Under similar circumstances the mediaeval markets would have failed utterly. These modern markets revealed in each instance a remarkably prompt understanding of the situation.

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